

## GLOSSARY

- Abandon:** To cease producing oil and gas from a well when it becomes unprofitable. Different steps may be involved in abandonment: Part of the casing may be removed and salvaged; one or more cement plugs may be placed in the bore hole to prevent migration of fluids between the different formations penetrated by the bore hole; and the well is abandoned.
- Aquatic Lands:** All state-owned tidelands, shorelands, harbor areas and the beds of navigable water.
- Blowout:** An uncontrolled flow of gas, oil or other well fluids into the atmosphere. A blowout occurs when formation pressure exceeds the pressure applied to it by the column of drilling fluid.
- Blowout Prevention Equipment:** One of several systems of valves installed at the well head to prevent the escape of pressure either in the annular space between the casing and drill pipe or an open hole. Also referred to as BOPE.
- Bonus Bid:** An offer, oral or sealed, by an interested person to acquire a lease. Bids are accepted as a one-time payment and must be in excess of the minimum annual rental.
- Casing:** Steel pipe placed in an oil or gas well as drilling progresses to prevent the wall of the hole from caving in during drilling and to provide a means for extracting oil and gas if the well is productive.
- Casing String:** The entire length of all the joints of casing run into a well.
- Cementing:** The application of a liquid slurry of cement and water to various points inside or outside the casing.
- Christmas Tree:** The control valves, pressure gauges and chokes assembled at the top of a well to control the flow of oil and gas after the well has been drilled and completed.
- Condensate:** The liquid hydrocarbons recovered at the surface that result from condensation due to reduced pressure or temperature of the hydrocarbons existing in a gaseous phase in the reservoir.
- Conductor Pipe:** A short string of large-diameter casing used to keep the top of the well bore open and to provide a means of conveying the up-flowing drilling fluid from the well bore to the mud pit.
- Cuttings:** The fragments of rock dislodged by the bit and brought to the surface by the drilling mud.
- Development:** Work which generally occurs after exploration and furthers bringing in production, including defining the extent of the oil and gas resources and construction of support facilities.

**Development Unit:** The maximum area of a pool which may be drained efficiently and economically by one well.

**Development Well:** 1) A well drilled within a known or proven productive area of an oil or gas field. (2) A well drilled to permit more effective extraction of oil and gas from a reservoir.

**Directional Drilling:** Intentional deviation of a well bore from the vertical. It is sometimes necessary or advantageous to drill at an angle from the vertical. Controlled directional drilling makes it possible to reach subsurface areas remote from the point where the bit enters the earth.

**Drilling Fluid:** A fluid circulated within the wellbore from the surface. Usually a mixture of clay, water and other chemical additives. Air, gas or water can be used as drilling fluid.

**Drill String:** The column or string of drill pipe with attached joints that transmit drilling fluid and rotational power to the drill bit.

**Exploration:** The investigation of oil and gas resources by any geological, geophysical, geochemical or other suitable means.

**Gas Lift:** Any method used to lift liquid to the surface by injecting gas into the well bore from which production is obtained.

**Gravity Survey:** Measurements of the gravitational field at a series of different locations.

**Grouting:** See Cementing.

**Hydrocarbons:** Organic compounds of hydrogen and carbon.

**Igneous:** Those rocks formed by solidification from a molten or partially molten state.

**Lithology:** A description of rocks on the basis of such characteristics as color, mineralogic composition and grain size.

**Log:** A continuous record as a function of depth of observations (electrical, geophysical, geochemical) or well cuttings of the rock, exposed in a well bore.

**Magnetic Survey:** Measurement of a component or element of the geomagnetic field at different locations.

**Magnetotelluric Survey:** An electromagnetic method of surveying in which natural electric and magnetic fields are measured.

**Metamorphic Rock:** Those rocks formed in the solid state by pronounced changes of temperature, pressure and chemical environments.

**Permeability:** A measure of the ability of fluids or gas to diffuse or pass through a porous (rock.) material

**Plugging:** To place cement or mechanical plugs into a well at specified intervals to prevent contamination of freshwater or oil and gas zones; or to prevent the interzone migration of fluids.

**Pool:** An underground reservoir containing a common accumulation of oil or gas, or both. Each zone of a structure which is completely separated from any other zone in the same structure such that the accumulations of oil or gas are not common with each other is considered a separate pool and is covered by the term "pool".

**Porosity:** The ratio of the volume of spaces in a material to the volume of its mass.

**Production:** Extracting oil and/or gas in paying quantities.

**Reclamation:** The reasonable protection and rehabilitation of all land subject to disruption from exploration, development and production of an oil and gas resource.

**Reserve Pit:** A waste pit, usually an excavated earthen-walled pit. It may be lined with plastic or other impervious materials to prevent contamination of the soil.

**Reservoir:** A section of porous and permeable sedimentary rock containing commercial quantities of oil or gas.

**Sedimentary:** Those rocks formed of fragments of other rock deposited by wind or water.

**Separator:** Apparatus used for separating oil, gas, water, etc., as it is produced.

**Shot Hole:** In seismic prospecting a bore hole in which an explosive is placed for generating seismic waves.

**Shows:** A trace of oil or gas detected in a core, cuttings or circulated drilling fluid; or interpreted from electrical or geophysical logs run in a well.

**Stratigraphic Test or Well:** A hole drilled to obtain information on the thickness, lithology, sequence, porosity, permeability and age of the rock penetrated. Frequently drilled to evaluate a potentially productive oil or gas zone.

**Surface Pipe:** The first string of casing (after the conductor pipe) that is set in a well, varying in length from a few hundred to several thousand feet. Some states require a minimum length to protect fresh water sources.

**Tank Battery:** A group or collection of tanks located at convenient points for storing oil prior to transporting by truck or pipeline.

**Treater:** Mechanical equipment used to separate oil from water.

**Wetlands:** Those areas extending landward for 200 feet in all directions as measured on a horizontal plane from the ordinary high water mark; all marshes, bays, swamps, floodways, river deltas and flood plains associated with or influenced by any stream, river, lake or tidal water; or any combination thereof.

**Wildcat Well:** An exploratory well drilled for oil or gas on a geologic feature not yet proven to be productive, in an unproven territory or to a zone that has never produced or has not been known to be productive in the general area.